

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (Currently amended) A transformed cell in which a polynucleotide ~~having a nucleotide sequence encoding an amino acid sequence of an osmosensing histidine kinase having no transmembrane region~~ is introduced in a functional form into a cell that is deficient in at least one hybrid-sensor kinase.

2. (Currently amended) The transformed cell according to claim 1, wherein the polynucleotide ~~having a nucleotide sequence encoding an amino acid sequence of an osmosensing histidine kinase having no transmembrane region is a polynucleotide complementing the deficiency in~~ complements the hybrid-sensor kinase deficiency in the cell deficient in at least one hybrid-sensor kinase in which the polynucleotide is introduced.

3. (Original) The transformed cell according to claim 1, wherein the cell is a microorganism.

4. (Original) The transformed cell according to claim 3, wherein the microorganism is budding yeast.

5. (Currently amended) The transformed cell according to claim 1, wherein the osmosensing histidine kinase having no transmembrane region ~~is an osmosensing histidine kinase having no transmembrane region and having~~ has a mutation ~~that~~ which confers resistance to any of a dicarboximide antifungal compound, an aromatic hydrocarbon antifungal compound and a phenylpyrrole antifungal compound to the cell.

6. (Currently amended) The transformed cell according to claim 5, wherein the osmosensing histidine kinase having no transmembrane region ~~has~~ is a histidine kinase having the amino acid sequence ~~of~~ represented by SEQ ID NO: 13.

7. (Currently amended) The transformed cell according to claim 1, wherein the osmosensing histidine kinase having no transmembrane region ~~is an osmosensing histidine kinase which is derived from a plant-pathogenic filamentous fungus and has no transmembrane region.~~

8. (Currently amended) The transformed cell according to claim 1, wherein the osmosensing histidine kinase having no transmembrane region ~~is an osmosensing histidine kinase which is derived from Botryotinia fuckeliana, Magnaporthe grisea, Fusarium oxysporum, Mycosphaerella tritici, Thanatephorus cucumeris or Phytophthora infestans, and has no transmembrane region.~~

9. (Currently amended) The transformed cell according to claim 1, wherein the osmosensing histidine kinase having no transmembrane region ~~is an osmosensing histidine having no transmembrane region which~~ has thean amino acid sequence ofrepresented by SEQ ID NO: 1, ~~SEQ ID NO: 16, SEQ ID NO: 41, SEQ ID NO: 55, SEQ ID NO: 68 or SEQ ID NO: 90.~~

10. (Currently amended) The transformed cell according to claim 1, wherein the polynucleotide has thenucleotide sequence encoding an amino acid sequence of the osmosensing histidine kinase ~~having no transmembrane region is a~~ nucleotide sequence ofrepresented by SEQ ID NO: 2 or SEQ ID NO: 14, ~~SEQ ID NO: 17, SEQ ID NO: 42, SEQ ID NO: 56 or SEQ ID NO: 69.~~

11. (Withdrawn-Currently amended) A method of assaying the antifungal activity of a substance, which comprises:

a first step of culturing the transformed cell as defined in claim 1 in the presence of a test substance;

a second step of measuring an amount of intracellular signal transduction from the osmosensing histidine kinase having no transmembrane region ~~expressed in the transformed cell cultured in the first step~~ or an index value having the correlation therewith; and

a third step of assessing the antifungal activity of the test substance based on a difference between an amount of intracellular signal transduction or an index value having the correlation therewith measured in the second step and a control.

12. (Withdrawn) The method of assaying according to claim 11, wherein the amount of intracellular signal transduction from the osmosensing histidine kinase having no transmembrane region or the index value having the correlation therewith is an amount of growth of the transformed cell.

13. (Withdrawn) A method of searching an antifungal compound, which comprises selecting an antifungal compound based on the antifungal activity assessed in the assaying method as defined in claim 11.

14. (Withdrawn) An antifungal compound selected by the searching method as defined in claim 13.

15.-22. (Canceled)